CLAIMS

1. A Wheelchair with Multi-Functions, for use by a handicapped person, comprising :-

a chair with a backrest, seat with a hole in a centre of the seat, said hole fitted with a

centre pad and a leg rest;

a pair of front legs, connected to the seat, each leg being mounted with an universal wheel;

a pair of rear legs, each leg with an electric wheel;

a pair of arm rests with a joy stick on an arm rest to manoeuvre the wheelchair;

a linear actuator with a mechanical link connected to each front leg; and

the linear actuator connected to a mechanical link to each rear leg

a set of chest safety straps installed on back rest

a pair of safety straps for inner thigh installed on seat

wherein the handicapped person seated in the wheelchair may switch from one function, Mobile Mode to another function, namely Wheelchair Assist Mode or Bed Mode or Stand Up Assist Mode or Standing Mode, by adjusting the wheelchair and the handicapped person could switch back to Mobile Mode by further adjusting the Wheelchair.

2. A Wheelchair with Multi-Functions as claimed in Claim 1, when said wheelchair is to be changed from Mobile Mode to Toilet Assist Mode, to allow the handicapped person to use a toilet, by adjusting the Wheelchair as follows:-

using the joystick to reverse the wheelchair towards a toilet bowl so that the seat is over a top of the toilet bowl;

lowering the centre pad of the seat so that the hole in the seat is over the toilet bowl; and

further adjusting the height of the seat using the linear actuator so that the height of the seat of the wheelchair is slightly above the top of the toilet bowl.

3. A Wheelchair with Multi-Functions as claimed in Claim 1, when said wheelchair is to be changed from Mobile Mode to Toilet Assist Mode, to allow the handicapped person to use a toilet, by adjusting the Wheelchair as follows:-

lowering the centre pad of the seat to be slightly above the level of a toilet bowl,

using the joystick to reverse the wheelchair towards the toilet bowl so that the seat

is over a top of the toilet bowl;

the hole in the seat is over the toilet bowl; and

further adjusting the height of the seat using the linear actuator so that the height of the seat of the wheelchair is slightly above the top of the toilet bowl.

4. A Wheelchair with Multi-Functions as claimed in Claim 1, when said wheelchair is to be changed from Mobile Mode to Stand Up Assist Mode, to assist the handicapped person to stand up with assistance of the wheelchair, by :-

retracting the linear actuator;

causing the rear legs and mechanical link connected to the backrest and rear legs to move towards the front wheels, resulting in the rear legs being longer than the front legs, thereby pushing the seat and backrest up;

until the handicapped person is being pushed from a sitting position to a standing position, causing the handicapped person to stand up with the assistance of the Wheelchair in this Stand Up Assist Mode.

5. A Wheelchair with Multi-Functions as claimed in Claim 1, when said wheelchair is changed from Mobile Mode to Bed Mode, by :-

extending the linear actuator to push the front and rear legs apart, so that the mechanical link causes the back rest to be pulled down;

extending the mechanical link to linear actuator causing the front leg rest to be pushed up;

until the back rest and front leg rest are in a horizontal plane with the seat; and

turning the arm rests to be aligned to the horizontal position of the back rest;

thereby creating a leg rest and back rest which is in a horizontal position, and with the seat already in a horizontal position, forming a horizontal bed made up of a leg rest, back rest and seat, all in a horizontal plane.

6. A Wheelchair with Multi-Functions as claimed in Claim 1, when said wheelchair is changed from Mobile Mode to a Standing Mode, by :-

retracting the linear actuator,

causing the rear legs to move towards the front wheels, thereby pushing the seat and backrest up; and

causing the handicapped person is be pushed by the seat and back rest into a standing position.

7. A Wheelchair as claimed in Claim 6, when said wheelchair has changed from Mobile Mode to a Standing Mode, the handicapped person in the said Standing Mode is further secured by being fastening with one or more chest straps and one or more inner thigh straps to prevent the handicapped person from falling.